

CENTRAL INTELLIGENCE AGENCY
INFORMATION REPORT

REPORT

CD NO.

COUNTRY	East Germany	DATE DISTR.	6 January 1955
SUBJECT	Research Activities at the Heinrich Hertz Institute	NO. OF PAGES	3 25X1
PLACE ACQUIRED		NO. OF ENCLS. (LISTED BELOW)	25X1
DATE OF INFO.		SUPPLEMENT TO REPORT NO.	

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- L. There are seven working divisions in the Heinrich Hertz Institute.
- a. Group 1. **Field Acoustics** 25X1
- Chief: [REDACTED] Deputy: Bordun (fnu);
 Areas of Work: Problems of architectural acoustics in Berlin and East Germany;
 Directional Microphones (Richtmikrofone);
 Three Dimensional Sound (Plastisches Horen-Raumton);
 Loudspeakers
 Research on acoustical materials (Akustische Stoffuntersuchungen)
 Available Equipment: Sound-and echo-proof room, transmitter studio, measuring vehicle (Messwagen)
 Head: [REDACTED]
- b. Group 2. Low Frequency 25X1
- Chief: Prof. [REDACTED] Deputy: Dittmar (fnu).
 [REDACTED] (fnu), Lover [REDACTED] (fnu), [REDACTED] (fnu),
 Sphere - Dr. [REDACTED] (fnu); Technical a. [REDACTED] (fnu)
 Eng.. Lange (fnu); Technical a. [REDACTED] (fnu);
 Solar Measurements - Dipl. Ing. Fuerstenberg (fnu)
 Eng. Prinzler (fnu), Eng. Michel (fnu); mechanics: Huebner (fnu)
 Bierhals (fnu).
 Terrestrial Measurements- Dipl. Physicist Volland (fnu)
 Special Work Area- UHF Two Way Radio Telephone for V.P.-Eng.
 Pucher (fnu)
 The branch in Neustrelitz has a nonvariable wave transmitter
 The branch in Ruegen has a variable wave transmitter with a range of 3 - 20 cycles.
 The work in air measurements is under the direction of the Head of the Institute, [REDACTED]
- c. Group 3. Field: [REDACTED] 25X1
- Chief: Dr. [REDACTED] Deputy: [REDACTED]
 Areas of Work: Geodesy and Magnetism Janicki (fnu)
 Mechanics
 Laboratory Techniques - Dr. Rabenhorst (fnu).

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Research on Materials (Stoffuntersuchung)-Eiehl (fnu)
 Measurement of tangents delta, epsilon, and mu for wave-
 lengths 30 - 2.4 cm (to be expanded to 1 cm)-Eng. Hartwig (fnu)
 Molecular Spectroscopy (Molekul-Spektroskopie) to 3 cm
 (to be expanded in 1955 to 1 cm) - Dipl.
 Physicist Koepp (fnu). Koepp is doing his doctorate work
 on "core inductions: (Kerninduktion)" [redacted]
 Molecular Spectroscopy for ammonia [redacted] measuring
 the frequency spectrum with a 3 cm wave [redacted] re-
 production (Vervielfaeltigung). This work has been going
 on for two years without results. Farnik (fnu) and Hantow
 (fnu) are in charge.

Antennas for millimeter wave range- Dr. Reinhard (fnu)
 Electron torch (Elektronenfackel- electron heating torch
 cable of melting tungsten)- Eng. Kabel (fnu)
 High frequency switch for 20 cm and 3 cm waves used for
 solar studies- Dr. Molnwo (fnu) Eng. Beyer (fnu)
 Receivers and transmitters- Dipl. Mathematician Flietner
 (fnu) and Eng. Schmidt (fnu). Flietner wrote a doctorate
 dissertation on transistors and detectors; he wanted to give
 a lecture about this dissertation in Hamburg but was not per-
 mitted by the Institute to do so.

d. Group 4

Field: Electrical Engineering
 Chief: Dr. [redacted]
 (Elektro-Optics)
 Areas of Work: Monoscope installation (Monoskop), Elec-
 trical circuitry [redacted]
 [redacted]
 [redacted]
 [redacted]
 [redacted]
 [redacted]
 [redacted]
 [redacted]
 [redacted]
 [redacted]

e. Group 5

s Field: Material research (Stoffuntersuchung)
 Chief: Diehl (fnu)
 Areas of work: "Pasten fuer Spezi-
 stances spray [redacted] or in tubes)- Dr. [redacted]
 Krotter (fnu), Eng. Borineck (fnu)
 Recording tape- Eng. Erich (fnu); Technician: Valentin (fnu)

f. Group 6

Field: Theoretical Physics
 Chief: Dipl. Physicist Blaum (fnu). Blankenfeld is
 working on a doctorate dis- [redacted] which he aims to prove
 that five Russian doctorat [redacted] in his field have
 false conclusions.

f. Group 7

Workshop. Chief: Foreman(Meister) Haufe (fnu)

2. **Magnetowaves and Gas preparation working on thermal diffusion (Ausbreitung) of electro-**
magnetic waves and is preparing a formula for the calculation thereof.
3. The Scientific-Technical Office (Wissenschaftlich-Technische Buero-WTB) has shown great interest in the variable tunable transmitter (Durchdrehsender) on [redacted] transmitter, however, is to be increased in strength at a cost of [redacted]
4. [redacted] development of magnetrons for 5mm wavelength, four experimental units [such tubes] were prepared for pumping out of air (Auspumpen). In one of [redacted] "pump-out" tubes, the jickel rods of 1 mm diameter broke during the [redacted] process (whereby the ultimate vacuum is produced by absorbing chemically the last residue of oxygen in the tube) because the nickel was impure. Further experiments had to be cancelled.
5. Dipl. Physicist Kunze (fnu), who develops special tubes, is working on a secondary electron multiplier (Zweiteilchenvervielfacher).

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- ,6. Research on semi-conductors (Halbleiter) is carried on by [REDACTED] Dipl. Mathematician Flietner (fmu), and Eng. Appelt (fmu).
7. The head of the Heinrich Hertz Institute is at present mainly concerned with research on Solar Measuring Devices. The following items have been built for this study:

- 1 8-meter reflector [REDACTED] Berlin-Adlershof (80 cm wavelength)
1 4-meter reflector [REDACTED] Siegen (20 cm wavelength)
1 4-meter reflector [REDACTED] Berlin-Adlershof (3 cm wavelength)
1 4-meter reflector is still in the development process (10 cm wavelength)

In addition, there are two four-meter mirrors for various wave-lengths according to the interference process (zwei Stueck 4 meter Spiegel fuer verschiedene Wellenlaengen nach dem Interferenzverfahren).

One 20-meter mirror for wavelengths of 1 meter to 10 centimeters is to be built in 1955.

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